

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/846,572

05/01/2001

Fabrizio Loppini

GB920000073US1

4857

7590

09/02/2004

Edward H. Duffield  
IBM Corp, IP Law Dept T81/503  
3039 Cornwallis Road  
PO Box 12195  
Research Triangle Park, NC 27709-2195

EXAMINER

NGUYEN, LE V

ART UNIT

PAPER NUMBER

2174

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/846,572	<b>Applicant(s)</b> LOPPINI ET AL.	
	<b>Examiner</b> Le Nguyen	<b>Art Unit</b> 2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This communication is responsive to an amendment filed 5/27/04.
2. Claims 1-22 are pending in this application. Claims 1 and 12 are independent claims; and, claims 1, 2, 7, 12, 13, 18 and 22 have been amended. This action is made Final.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Specification***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 555 and 560 of fig. 5. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

5. Claims 1-3, 7-11, 12-14 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goh in view of Gallo et al. ("Gallo").

As per claim 1, Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint, the system comprising means for depicting a desktop which

conceptually provides a three-dimensional surface for the icons, in which the three dimensional surface is represented on a two-dimensional display device with the icons are oriented to be facing the user viewpoint and means for supporting navigation of the desktop by simulating a rotation of the desktop in three-dimensional space with the location of the icons corresponding to their respective positions to other icons (Goh: Abstract; figs. 5-6; *described and depicted is a three-dimensional workspace with real-time rotation with the icons oriented to be facing the user*). Goh does not explicitly disclose the surface to be a smooth, rounded surface. Gallo teaches displaying a plurality of icons to a selected user viewpoint wherein the icons are oriented to be facing the user viewpoint and corresponding to their respective positions on a *smooth, rounded* surface (Gallo: figs. 1, 5 and 9; col. 6, lines 18-39; col. 11, lines 32-47). Therefore, it would have been obvious to an artisan at the time of the invention to include Gallo's teaching of displaying a plurality of icons to a selected user viewpoint wherein the icons are oriented to be facing the user viewpoint and corresponding to their respective positions on a smooth, rounded surface to Goh's teaching of displaying a plurality of icons wherein the icons are oriented to be facing the user and simulating a rotation in a three dimensional surface with the location of the icons corresponding to their respective positions to other icons in order to provide users with a maximal number of visible portals and that lends itself well to rotation upon any axis.

As per claim 2, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the desktop is viewed at an apparent distance from the user viewpoint and the means for depicting includes means for

calculating a viewing distance for each of the plurality of icons based on the apparent distance and the location of the icon on the three-dimensional surface and means for scaling each of the plurality of icons by the relevant viewing distance with those icons on portions of the surface facing away from the desktop not being displayed (Gallo: figs. 1, 5 and 9-11; col. 7, lines 25-27; Goh: figs. 5-6; col. 6, lines 29-32; *users control viewpoint, e.g. as can be seen from the comparison between figs. 5 and 6, icons are scaled according to users' viewpoint*).

As per claim 3, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint comprising means for changing the apparent distance between the viewpoint and the desktop (Goh: figs 5-6; *desktop 500 of fig. 5 is viewed from a closer distance than desktop 500 of fig. 6*).

As per claim 7, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which an icon is initially added to the center of the desktop by default (Goh: col. 6, lines 20-21).

As per claim 8, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the means for supporting navigation is responsive to dragging the desktop with a pointing device in order to rotate the desktop (Goh: col. 6, lines 35-37).

As per claim 9, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the a means for supporting navigation that is responsive to dragging an icon beyond the desktop with a pointing device in order to rotate the desktop (Goh: col. 6, lines 35-37; *desktop is rotated via axes icon(s)*).

As per claim 10, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the plurality of icons are grouped automatically according to pre-determined criteria (Goh: col. 6, lines 20-21).

As per claim 11, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the three-dimensional the three-dimensional surface is (Gallo: figs. 1, 10 and 11; col. 6, lines 18-39).

Claim 12 is similar in scope to claim 1 and is therefore rejected under similar rationale.

Claim 13 is similar in scope to claim 2 and is therefore rejected under similar rationale.

Claim 14 is similar in scope to claim 3 and is therefore rejected under similar rationale.

Claim 18 is similar in scope to claim 7 and is therefore rejected under similar rationale.

Claim 19 is similar in scope to claim 8 and is therefore rejected under similar rationale.

Claim 20 is similar in scope to claim 9 and is therefore rejected under similar rationale.

Claim 21 is similar in scope to claim 10 and is therefore rejected under similar rationale.

Claim 22 is similar in scope to claim 11 and is therefore rejected under similar rationale.

6. Claim 4-6 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goh (US 5,678,015) in view of Gallo et al. ("Gallo").

As per claim 4, although the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint comprising a means for storing the position of each of the plurality of icons, in which the position is stored as a two-dimensional co-ordinate relative to the display device (Goh: col. 6, lines 25-28; col. 6, line 63 through col. 7, line 7; col. 9, line 43 through col. 8, line 13), the modified Goh does not explicitly disclose storing the position of each of the plurality of icons in an array. Official Notice is taken that the use of storing data values, such as the position of an icon, in an array is well known in the art and considered to be fundamental to data structures, and, in turn, a major fundamental of computer programming. Therefore, it would have been obvious to an artisan at the time of the invention to include storing the position of each of the plurality of icons in an array of a GUI system for displaying a plurality of icons to the modified Goh's means for storing the position of each of the plurality of icons so that data values of the same type may be referenced by a singular array name.

As per claim 5, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the means for supporting navigation comprises a means for determining a new two-dimensional co-ordinate for each of the plurality of icons following rotation of the desktop and a means for updating the array accordingly (Goh: col. 6, lines 3-28).



As per claim 6, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the means for determining comprises a means for transforming the two-dimensional co-ordinate of each of the plurality of icons into a three-dimensional co-ordinate, a means for changing the three-dimensional co-ordinates based on the rotation of the desktop and a means for transforming the changed three-dimensional co-ordinates into a new two-dimensional co-ordinate for each of the plurality of icons (Goh: col. 6, lines 3-42).

Claim 15 is similar in scope to claim 4 and is therefore rejected under similar rationale.

Claim 16 is similar in scope to claim 5 and is therefore rejected under similar rationale.

Claim 17 is similar in scope to claim 6 and is therefore rejected under similar rationale.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection, except for the following arguments, which have been fully considered but are deemed not persuasive:

Goh does not teach sizing icons respective of distance from a viewpoint.

The examiner disagrees for the following reason(s):

Goh teaches displaying a plurality of icons to a selected user viewpoint wherein the icons are oriented to be facing the user viewpoint and with the size and location of

the icons corresponding to their respective positions on a smooth, rounded surface (figs. 5 and 6; *displayed in fig. 6 is a user's viewpoint after rotation to a new position with left, right and back windows depicted wherein icons "insight", "showmap" and "xcalc" on the right window in comparison with "insight", "showmap" and "xcalc" on the left window and fig. 5 appear in a size and location respective to their distance from the viewer and a viewpoint*).

### **Conclusion**

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

*Kristine Kincaid*  
KRISTINE KINCAID  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

***Inquires***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê whose telephone number is **(703) 305-7601** or **(571) 272-4068**. The examiner can normally be reached on Monday - Friday from 5:30 am to 2:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached on (703) 308-0640.

The fax numbers for the organization where this application or proceeding is assigned are as follows:

(703) 872-9306 [Official Communication]

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

LVN  
Patent Examiner  
August 27, 2004